



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellants: Jay S. Walker, Andrew S. Van  
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Daniel E. Tedesco,

Application No.: 09/350,875

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For: MULTI-TIER PRICING OF  
INDIVIDUAL PRODUCTS BASED  
ON VOLUME DISCOUNTS

) Group Art Unit: 3627

) Examiner: Gerald J. O'Connor

) **SUPPLEMENTAL APPEAL BRIEF**  
) **(Replaces the previous Appeal Brief in its**  
) **entirety - no reference is made to the**  
) **previous Appeal Brief)**

) Attorney Docket No. 98-113

) Customer No. 22927  
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Dated: June 9, 2004 By: *V. S. Leliever*

Veronika S. Leliever

**BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Mail Stop: Appeal Brief  
Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Appellants hereby appeal to the Board of Patent Appeals and Interferences from the  
decision of the Examiner in the Final Office Action mailed December 03, 2002 (Paper No. 19),  
rejecting claims 1 - 15, 32 and 57 - 71.

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## **REAL PARTY IN INTEREST**

The present application is assigned to Walker Digital, LLC, 1177 High Ridge Road, Stamford, CT 06905.

## **RELATED APPEALS AND INTERFERENCES**

Appellants are not aware of any other appeals which might be considered to directly affect, be directly affected by or have a bearing on the Board's decision in the pending appeal.

## **STATUS OF CLAIMS**

Claims 1 – 15, 32, and 57 - 71 are pending in the present application and are being appealed.

Claims 16 – 31 and 33 – 56 have been cancelled.

Claims 1 – 15, 32 and 57 - 71 stand rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter.

Appellants respectfully traverse Examiner's §101 rejection.

Claims 1 – 15, 32 and 57 – 71 stand rejected under §102 (subsection unspecified) as being anticipated by Admitted Prior Art.

Appellants respectfully traverse Examiner's §102 rejection.

Claims 1 – 15, 32 and 57 – 71 stand rejected under 35 U.S.C. §102(b) as being anticipated by each of the following references:

- U.S. Patent No. 5,444,630 to Dlugos; and
- U.S. Patent No. 5,056,019 to Schultz et al.

Appellants respectfully traverse Examiner's §102(b) rejections.

## STATUS OF AMENDMENTS

No amendments were filed subsequent to final rejection.

## SUMMARY OF INVENTION

The methods and apparatus of the present invention relate to calculating discounted prices for products sold at retail. [Specification, page 1, lines 15 – 16, Figure 14, element 314, Figure 26, element 770].

Generally, according to one aspect of the invention, a method for calculating a purchase total for a transaction is disclosed. In the claimed embodiments the purchase total is calculated by first calculating an initial purchase total using respective first prices for each of the products included in the purchase. It is then determined whether the initial purchase total is at least equal to a predetermined threshold purchase total. If the initial purchase total is at least equal to the predetermined threshold purchase total, a reduced purchase total is calculated for the transaction. The reduced purchase total is calculated based on respective second prices of each of the products in the transaction. [Specification, page 2, line 55 – page 3, line 66; Figure 26, elements 746 through 770]. The reduced purchased total is calculated such that a percentage difference between one first price and the corresponding second price of a first product of the transaction is different than a percentage difference between another first price and the corresponding second price of a second product of the transaction.

The discounting methods and apparatus of the present invention permit the seller to predetermine and store one or more levels of discount prices on a product-by-product basis. [Figure 8, elements 8001 through 8005]. Each level of discount prices may be associated with a respective predetermined threshold purchase total. [Fig. 6A, elements 6001 through 6003]. For example, if an initial purchase total is at least equal to \$50, the customer may qualify for the “bronze level prices” for the products in the transaction, if the initial purchase total is at least equal to \$75, the customer may qualify for the “silver level prices” and if the initial purchase total is at least equal to \$100, the customer may qualify for the “gold level prices.” However, the difference between a bronze level price and the silver level price for a first product may be 2% while the difference between the bronze level price and the silver level price for a second product may be 5%. [Figure 7, element 7000; Figure 8, elements 8001 through 8005].

The seller may be able to carefully balance the reduction in profit margin for each product with the overall level of spending made by the customer. For example, the discount price may be set such that the difference between the retail price and the discount price for a high margin product is substantially greater than the difference between the retail price and the discount price of a low margin product. [Specification, page 3, line 81 – page 4, line 3].

For example, if a transaction includes orange juice and milk and a first price of the orange juice is \$3.50 and the first price of the milk is \$3.00, the initial purchase total for the transaction is \$6.50. Assuming the threshold purchase total is \$5.00, a reduced purchase total is calculated. Assuming the second price for the orange juice is \$3.15 and the second price for the milk is \$2.85, the reduced purchase total is \$6.00. The percentage difference between the first price for the orange juice (\$3.50) and the second price for the orange juice (\$3.15) is 10% (*i.e.*, \$3.50 less 10% or \$0.35 is \$3.15). This is a different percentage than the percentage difference between the first price for the milk (\$3.00) and the second price for the milk (\$2.85), which is 5% (*i.e.*, \$3.00 less 5% or \$0.15 is \$2.85). Allowing different percentages among the price differences for individual products provides the seller “to predetermine and store one or more levels of discount prices on a product-by-product basis. The seller may therefore be able to carefully balance the reduction in profit margin for each product with the overall level of spending made by the customer.” [Specification, page 3, lines 81 – 84].

## ISSUES

Whether claims 1 – 15, 32 and 57 – 71 are directed to statutory subject matter, as required under 35 U.S.C. §101.

Whether claims 1 – 15, 32 and 57 – 71 are unpatentable under 35 U.S.C. §102 (section not specified) over Admitted Prior Art.

Whether claims 1 – 15, 32 and 57 - 71 are unpatentable under 35 U.S.C. §102(b) over Dlugos.

Whether claims 1 – 15, 32 and 57 - 71 are unpatentable under 35 U.S.C. § 102(b) over Schultz.

## GROUPING OF CLAIMS

The claims in different groups do not stand and fall together.

Appellants group the pending claims as follows:

Group I – claims 1 – 4, 6 – 15, 32, 57 – 59, 61 – 69, and 71.

Group II – claims 5 and 60.

Group III – claim 70.

Appellants believe that claims in different groups are separately patentable, as explained below.

## ARGUMENTS

As explained below, the Examiner's §102 rejections of the claims are improper at least because the Examiner has failed to set forth the required prima facie case of unpatentability of any claim. The Examiner has not shown all limitations of any claim to be disclosed by the references of record.



Moreover, regardless of the failure to present a prima facie case, the cited references, whether alone or in any combination, cannot be interpreted in a manner that would render any pending claim obvious.

Further, the Examiner's §101 rejection of the claims is improper at least because the Examiner has failed to set forth the required prima facie case of unpatentability of any claim. Specifically, the Examiner has not shown that any claim is directed to non-statutory subject matter.

Moreover, regardless of the failure to present a prima facie case, the pending claims do produce a useful, concrete and tangible result and are thus directed to statutory subject matter.

Further, the basis for the Examiner's §101 rejection has no basis in the law and constitutes an arbitrary and capricious agency action, as it imposes a new standard counter to agency precedent, with no reasoned explanation for the departure from precedent being provided.

Accordingly, the rejections are inappropriate and Appellants respectfully request that the Examiner's rejections be reversed.

In the arguments herein, claim numbers are indicated in **bold**, limitations of the claims are indicated in *italics*, and the references of record are indicated by underlining.

In separate arguments of patentability of different Groups, Appellants have, where possible, referred to prior arguments to avoid undue repetition.

## THE REFERENCES

The Examiner has relied on "admitted prior art, as described in the specification and drawings" in the §102(subsection unspecified) rejection of all claims. Additionally, the Examiner has relied on two references, in the alternate, in the §102(b) rejection of all claims. However, the admitted prior art and the references cited by the Examiner, either alone or in combination, do not disclose or suggest all of the limitations of any claim.

Discussed immediately below are the references used in rejecting the appealed claims: Admitted Prior Art, Dlugos and Schultz.

### **Admitted Prior Art**

Appellants have asserted, in the specification as filed, that “it is common practice for retail sellers to discount the prices of products in order to attract customers and increase sales volume. One very widespread method of discounting involves issuance of coupons. One type of coupon may be presented by the buyer when a particular product is purchased, in order to obtain a reduced price for the product. Another type of coupon may be presented to obtain X dollars off or X percent off a total purchase of Y dollars. It is also common to extend discounts of the latter kind without issuing or requiring presentation of a coupon. For example, retailers frequently advertise special sales of X per cent off all purchases made on a given day or all purchases made on that day of over a given amount.” [Specification, page 1, lines 18 – 27].

Appellants have further asserted that “[a]nother well-known promotional approach invites the customer to ‘buy one, and get one free.’ Alternatively and as an inducement to purchase larger quantities of products, discount prices are offered for the purchase of increased quantities of products (commonly referred to as ‘bulk discounts’), as in ‘one for 50¢, three for \$1’. Other discount plans are available only to customers who are ‘members’ of the plan. These include membership club ‘superstores’ that offer discounted prices on all products sold but are not open to the general public. Other stores (particularly supermarkets) are open to all but issue preferred customer cards that entitle the holder to discounts on some or all products in the store.” [Specification, page 2, lines 1 – 9)].

Appellants have further asserted that “[i]n the prior art systems sellers were constrained by either having to only offer a discount on a few selected products or offering an across-the-board discount (*e.g.*, 10% off across the board) on everything in a purchase.” [Response to the Office Action mailed March 15, 2002, page 13, lines 6 – 7].

### **The Dlugos patent**

In summary, Dlugos discloses a method and system for “effecting customized rating adjustments to transaction charges. More specifically the invention is directed to a system for improved and reliability in changing discount rates applied to transaction charges in a shipping system.” [Column 1, lines 7 – 12]. When calculating a charge for a transaction, “multiple discount levels may be provided and selected.” [Column 4, lines 25 – 26]. “These various

discount levels may be switched on at the appropriate agreed upon trigger which is illustrated in Fig. 6 as 'date'. However, it will be understood that the trigger may be a date, a quantity or a dollar value. In this way, there would not only be incentive targets for a customer but automatic switching whenever the trigger event is reached." In the disclosed method, "a base rate for a transaction is selected" and then a process of "testing characteristics of the transaction such as the time it occurred discount (or surcharge) structures may be scheduled to take effect." The characteristics of the transaction that may be tested include "total weight, charges billed, or number of units...time of occurrence". [Column 4, lines 36 – 49]. Once all the applicable discount levels for a transaction have been selected, "the routine calculates the final rate." [Column 5, line 8 – 9].

### **The Schultz patent**

In summary, Schultz discloses a method and system for "automatic tracking of consumer purchases and providing fulfillment and redemption of purchase incentives." [Column 1, lines 6 – 11]. "Manufacturers are solicited to provide incentive rewards for purchases of specific quantities of their product. The purchase incentives are compiled into a reward booklet which is distributed periodically directly to consumers at their homes and at participating retail outlets. The offers include descriptions of the participating products and the conditions for fulfillment of the purchase reward offer requirements." [Column 4, lines 56 – 63]. A consumer identifier provided to a consumer "is used to identify the consumer's purchases." [Column 5, lines 4 – 6]. The consumer presents the consumer identifier "when the consumer purchases his products." [Column 4, line 66 – Column 5, line 1]. "Each consumer is sent a periodic summary of all his purchases of the participating products and a reward certificate for the rewards earned. This reward certificate can be a negotiable check or can be adapted for redemption at a participating retail store." [Column 5, lines 15 – 20].

## 1. GROUP I

Group I includes independent claims **1 and 32** and dependent claims **2 – 4, 6 – 15, 57 – 59, 61 – 69 and 71**.

Since all independent claims are included in Group I, the patentability of the claims of Group I renders all claims of all other groups patentable as well.

As discussed below, the §102(subsection unspecified) rejection of the claims of Group I is flawed because the Examiner has not shown all limitations of any claim to be disclosed by the Admitted Prior Art.

Further, the §102(b) rejection of the claims of Group I is flawed because the Examiner has not shown all limitations of any claim to be disclosed by any of the references.

Further still, the §101 rejection of the claims of Group I is flawed because the basis for the rejection is unsupported by any statute, regulation, or court opinion and is counter to agency precedent.

Finally, the record could not support a rejection of any claim for obviousness.

### 1.1. Independent Claims 1 and 32

Independent claim 1 is directed to a method for calculating a purchase total for a transaction, in which a plurality of product identifiers that each represent a respective product to be purchased are received. An initial purchase total is calculated for the transaction based on respective first prices for each of the products to be purchased and it is determined whether the initial purchase total is at least equal to a predetermined threshold purchase total. If the initial purchase total is at least equal to the predetermined threshold purchase total, a reduced purchase total for the transaction is calculated. The reduced purchase total is calculated based on respective second prices for each of the products to be purchased. At least one of the respective second prices is lower than the corresponding first price for the product to be purchased. At least one of the respective second prices is calculated based on at least one of (i) the first price, (ii) a cost associated with the corresponding product, and (iii) a minimum profit amount.

In calculating the reduced purchase total, a percentage difference between one first price and the corresponding second for a first product to be purchased in the transaction is different

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than a percentage difference between another first price and the corresponding second price of a second product to be purchased in the transaction.

Independent claim 32 is also directed to a method for calculating a purchase total for a transaction, the method being substantially similar to that of independent claim 1. However, the method of independent claim 32 does not include the limitation that at least one of the respective second prices is calculated based on at least one of (i) the first price, (ii) a cost associated with the corresponding product, and (iii) a minimum profit amount.

For brevity, the discussion below refers to method claim 1, but the arguments are likewise applicable to independent claim 32 and dependent claims 2 – 4, 6 – 15, 57 – 59, 61 – 69 and 71.

## 1.2. Advantages of Independent Claim 1

The embodiment of claim 1 provides several advantages not even recognized, much less disclosed or suggested, by the prior art of record, either alone or in combination. These advantages render the claimed subject matter unanticipated by the prior art and nonobvious over the cited art.

In general, the embodiment of claim 1 is advantageous in that *calculating a reduced purchase total for a transaction* allows a seller to influence the behavior of a customer participating in the transaction. If a customer is entitled to one or more discounts, the calculation of a reduced purchase total for a transaction allows the customer to be made aware of the benefit of purchasing more products, and thus be more motivated to attempt to qualify for the reduced purchase total. For example, the calculated reduced purchase total may be displayed to a customer, applied to the transaction, printed on a register receipt, and / or stored in memory for future use. Additionally, calculating the reduced purchase total allows a seller to determine the amount of savings a customer earns on each transaction, thus allowing the seller to reevaluate, and perhaps modify, the effectiveness of the method of claim 1.

The embodiment of claim 1 is further advantageous in that *calculating a reduced purchase total for a transaction if an initial purchase total is at least equal to a predetermined threshold purchase total* encourages customers to purchase more in a given transaction in order to meet the predetermined threshold purchase total and qualify for the reduced purchase total,

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thus providing increased opportunity for profit to the seller. Simply providing discounts on one or more products in a transaction, as is done in the prior art, without requiring that an initial purchase total for the transaction be at least equal to a predetermined threshold purchase total, does not allow a seller to encourage purchase totals of at least a predetermined magnitude.

The embodiment of claim 1 is still further advantageous in that *calculating a reduced purchase total for a transaction if an initial purchase total is at least equal to a predetermined threshold, wherein a percentage difference between one first price and the corresponding second price for a first product is different than a percentage difference between another first price and the corresponding second price for a second product* allows a retailer to encourage large transaction purchase totals while maintaining an acceptable profit margin for each individual product in the transaction. Thus, for example, a customer may be encouraged to purchase more by knowing that his entire purchase total will be reduced because he will be entitled to reduced prices for the products in the transaction if he meets a specified threshold purchase total. The seller, however, can ensure the maintenance of an acceptable profit margin for each individual product in the transaction by having determined the reduced price for each product in a manner that maintains the desired profit margin for each individual product while at the same time satisfying the customer.

In other words, if the reduced purchase total were calculated by simply taking a percentage off the entire initial purchase total, thus discounting each of the products in the transaction by the same amount, it is likely that such a discount of at least one of the products in the transaction would result in an unacceptably narrow profit margin (or even a loss) to the seller for that product. The embodiment of claim 1 avoids this shortcoming by allowing for different percentage discounts for respective products in a transaction. At the same time, the embodiment of claim 1 allows the seller to motivate a customer into making more purchases and to satisfy that customer by providing a discount on, *e.g.*, each product in the customer's transaction, rather than a select few.

### 1.3. No Prima Facie Showing of Anticipation of the Claims of Group I

A reading of the rejections of the claims of Group I reveals that the Examiner has consistently ignored or misinterpreted the limitations of the claims. Various limitations of the claims are not disclosed or suggested by the references of record. Accordingly, the Examiner has not presented a prima facie case of anticipation of any claim of Group I.

Anticipation requires identity of the claimed process and a process of the prior art; the claimed process, including each step thereof, must have been described or embodied, either expressly or inherently, in a single reference. Minnesota Min. & Mfg. Co., v. Johnson & Johnson Orthopedics, Inc., 976 F.2d 1559, 24 USPQ2d 1321 (Fed. Cir. 1992); Glaverbel S.A. v. Northlake Mkt'g & Supp., Inc., 45 F.3d 1550, 33 USPQ2d 1496 (Fed. Cir. 1995). The elements of the claim must either be inherent or disclosed expressly in the reference. Constant v. Advanced Micro-Devices, Inc., 848 F.2d 1560, 7 USPQ2d 1057 (Fed. Cir. 1988). Further, the elements in the prior art must be arranged as they are in the claim. Richardson v. Suzuki Motor Co., 868 F.2d 1226, 9USPQ2d 1913 (Fed. Cir. 1988). There must not be any differences between the claimed invention and the prior art disclosure, as viewed by a person of ordinary skill in the art, for anticipation to exist. Scripps Clinic & Res. Found. v. Genentech, Inc., 927 F.2d 1565, 18 USPQ2d 1001 (Fed. Cir. 1991). Thus, the absence of any claim element from the reference negates anticipation. Kloster Speedsteel AB v. Crucible Inc., 793 F.2d 1565, 230 USPQ 81 (Fed. Cir. 1986). Further, “[f]or a prior art reference to anticipate a claim, the reference must disclose each and every element of the claim with sufficient clarity to prove its existence in the prior art. See In re Spada, 911 F.2d 705, 708, 15 U.S.P.Q.2D (BNA) 1655, 1657 (Fed. Cir. 1990) (‘The [prior art] reference must describe the applicant’s claimed invention sufficiently to have placed a person of ordinary skill in the field of the invention in possession of it.’ (citations omitted)). Although this disclosure requirement presupposes the knowledge of one skilled in the art of the claimed invention, that presumed knowledge does not grant a license to read into the prior art reference teachings that are not there. An expert’s conclusory testimony, unsupported by the documentary evidence, cannot supplant the requirement of anticipatory disclosure in the prior art reference itself. See Jamesbury Corp. v. Litton Indus. Prods., Inc., 756 F.2d 1556, 1563, 225 U.S.P.Q. (BNA) 253, 257-58 (Fed. Cir. 1985)”. Motorola, Inc. v. Interdigital Tech. Corp., 121 F.3d 1461, 43 USPQ2d 1481 (Fed. Cir. 1997).

*Group I*

**1.3.1 No showing that the references disclose *calculating a reduced purchase for a transaction if an initial purchase total is at least equal to a predetermined threshold purchase total, in which a percentage difference between one first price and the corresponding second price for a first product is different than a percentage difference between another first price and the corresponding second price of a second product.***

The Examiner has not shown that the references, alone or in combination, disclose or suggest the limitation of claim 1:

*calculating a reduced purchase total for a transaction if an initial purchase total is at least equal to a predetermined threshold purchase total, in which a percentage difference between one first price and the corresponding second price for a first product is different than a percentage difference between another first price and the corresponding second price of a second product*

For purposes of brevity, the above limitation will be referred to herein as follows:

*calculating a reduced purchase total for a transaction if an initial purchase total is at least equal to a predetermined threshold purchase total, wherein different products in the transaction are discounted by different percentages.*

Rejection over Admitted Prior Art

The claims of Group I stand rejected under 35 U.S.C. §102(subsection unspecified) as “being clearly anticipated by the admitted prior art, as described in the specification and drawings.” Beyond this cursory statement, Examiner makes only one other statement that addresses a particular limitation of the claims of Group I with respect to the rejection over Admitted Prior Art. The Examiner asserts that, as admitted by Applicants,

“the prior art systems include those that, ‘offer a discount on a few selected products’... Thus, in the prior art, the percentage difference between first and second prices for a first, discounted product, would be non-zero, and the percentage difference between first and second prices for a second, non-discounted product,

*Group I*



would be zero. As zero percent and any non-zero percent comprise different percentages, the prior art indeed includes percentage differences between first and second prices that are different for first and second products.” [Final Office Action, mailed December 03, 2002 (Paper No. 19), page 5, paragraph 11].

Neither of Examiner’s assertions addresses the claim limitation of claim 1 that the reduced purchase total that is calculated such that a percentage difference in prices for a first product is different than a percentage difference in prices for a second product is performed *if an initial purchase total is at least equal to a predetermined threshold purchase total*. Examiner has completely failed to address this claim limitation, much less shown where in the prior art this claim limitation is disclosed. None of the Admitted Prior Art, relied upon by Examiner in this rejection, even hint that such a feature is known in the prior art. In fact, the Admitted Prior Art was provided as illustrations of some of the shortcomings prior art that the embodiment of claim 1 overcomes. For example, in asserting that it is known for a retailer to offer discounts on a few selected products in a store, Appellants were noting that this practice does not encourage large purchase totals because “coupons or other promotions which apply only to certain product or products will do little to attract customers who are not interested in purchasing those products.” [Specification, page 2, lines 11 – 12].

Examiner has failed to address how Appellants’ assertions regarding known discounting techniques anticipate the claimed feature of calculating a reduced purchase total *if an initial purchase total is at least equal to a predetermined threshold purchase total*, merely focusing on the latter portion of the claimed feature that the reduced purchase total (if it is calculated because the required condition is satisfied) includes a first percentage price difference for a first product and a second percentage price difference for a second product. This showing is insufficient to satisfy the Examiner’s burden of presenting a prima facie case of anticipation, which requires that Examiner show that each feature of a claim is disclosed in the prior art (not just some claim features or part of a claim feature).

### Rejection over Dlugos

The Examiner also asserts that Dlugos anticipates claim 1 under 35 U.S.C. §102(b). In support of this assertion, Examiner points to column 4, lines 25 – 27 of Dlugos, which merely discloses: “[t]he significant advantage of the method is that multiple discount levels may be provided and selected as illustrated in Fig. 6.” Figure 6 is a flowchart illustrating a method for selecting various discount levels for a particular transaction, based on various tests against which the transaction is tested. One of the tests is a determination of whether a dollar amount of the transaction is greater than a predetermined value. Examiner asserts that “Dlugos discloses that the rates and discounts are different for each package, depending on the carrier a user selects, as well as the locality to which the user is shipping each particular package.” [Final Office Action, mailed December 03, 2002 (Paper No. 19), page 5, paragraph 12]. However, Examiner has failed to show that different discount levels apply to *different products within a single transaction* when a reduced purchase total is calculated, after it has been determined that an initial purchase total for the transaction is at least equal to a predetermined threshold, as is claimed.

Dlugos discloses that various discount levels may be applied to a particular transaction. “The above and other objects are attained in a method of generating a charge for a selected transaction...” [Dlugos, column 2, lines 5 – 6]. “As shown in FIG. 6, at 100, a base rate for a transaction is made...when all selections [of discount levels] have been made, the routine calculates the final rate at 160 and returns.” [Dlugos, column 4, line 36 – column 5, line 9]. Thus, in Dlugos when a particular discount level is applied to a particular transaction, the entire cost of the transaction is reduced across the board based on the selected discount levels. For example, if a transaction qualifies for a 10% discount and a 5% discount, the cost of the transaction is reduced by 15%. Effectively, this discounting method reduces the cost of every item that may be included in the transaction by 15%. Appellants note that such a discounting method is one described in the specification as having shortcomings which the embodiment of claim 1 solves (avoiding unacceptable reduction in individual products in a transaction by allowing different products in the transaction to be reduced by different percentages).

Nowhere in Dlugos is it described or enabled that a transaction may include multiple shipments such that a first discount level may apply to a first shipment in the transaction while a second discount level applies to a second shipment in the transaction. Examiner has not even asserted that a single transaction may include multiple packages or shipments. Examiner has merely asserted that different packages or shipments may have different discount levels applied thereto. However, since Dlugos describes each package or shipment is a distinct transaction, this assertion fails to address the limitation of claim 1 that, for a single transaction, *a reduced purchase total is calculated, wherein different products are discounted by different percentages*. Thus, Examiner has failed to show the limitation of claim 1 that for a particular transaction a reduced purchase total is calculated in which different products are reduced by different percentages if an initial purchase total for the transaction is at least equal to a predetermined total.

#### Rejection over Schultz

The Examiner also asserts that Schultz anticipates claim 1 under 35 U.S.C. §102(b). In support of this rejection, Examiner asserts that “the claimed features are considered inherent in the method of Schultz.” [Final Office Action, mailed December 03, 2002 (Paper No. 19), page 6, paragraph 13]. The Examiner goes on to provide the following example, apparently as illustrating how the claimed features are inherent in the method of Schultz:

“As an example, say the marked price of a first product is \$100 and a rebate is offered of \$5, and say the marked price of a second product is \$10 and a rebate is offered at \$1. Now, obviously, one has to buy the products to claim the rebates. So, the threshold total to get the reduced prices for the two products would be \$110, the first price for the first product would be \$100, the second price for the first product would be \$95, the first price for the second product would be \$10, the second price for the second product would be \$9, and the first purchase total would be \$110. As, the first purchase total would be at least equal to the threshold purchase total of \$110, discounts would apply, thus the second purchase total would become \$104, the discount percentage on the first product being 5%

and the different discount percentage on the second product being 10%.” [Final Office Action, mailed December 03, 2002 (Paper No. 19), page 6, paragraph 13].

In the above assertions, Examiner has failed to show that Schultz discloses *calculating a reduced purchase total for a transaction* at all, much less *calculating a reduced purchase total if an initial purchase total is at least equal to a predetermined threshold purchase total, wherein different products are discounted by different percentages*.

First, Examiner has failed to show that Schultz discloses *calculating a reduced purchase total*. As Examiner acknowledges in the above example, Schultz merely discloses that a customer may receive a rebate or reward certificate at some point after making a qualifying purchase. “Each consumer is sent a periodic summary of all his purchases of the participating products and a reward certificate for the rewards earned. This reward certificate can be a negotiable check or can be adapted for redemption at a participating retail store.” [Schultz, column 5, lines 15 – 22]. However, the purchase total calculated for the transaction in which the qualifying purchase is made is unaffected by rebate or reward certificate that may eventually be provided to the customer.

Schultz describes the following as occurring at a point-of-sale when a consumer purchases a product that may qualify the customer for a rebate or reward certificate: “When the consumer 19 brings his products 27 and 28 to the check-out terminal 25, he presents his member identification card 21 for scanning. The in-store computer system 22 uses the consumer identification code 21a read by the scanner 26 to access his customer file 31 so that if any reward items are purchased, a record of the purchase will be stored in the customer file 31...From these reward product purchase records 30a, the central management firm 3 determines the consumer’s 19 earned purchase rewards and sends a reward certificate 18 to the consumer 19 for those rewards earned.” [Schultz, column10, lines 7 – 28]. Thus, there is no step of *calculating a reduced purchase total* disclosed in Schultz.

A transaction purchase total is what a consumer must pay to the retailer in order to be able to take possession of the products being purchased. The embodiment of claim 1 is advantageous in that calculating a reduced purchase total allows the consumer’s out-of-pocket

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costs to be reduced at the time the consumer is purchasing the products. In Schultz, the consumer's out-of-pocket costs at the time of purchase of the products are unaffected by any rebate or reward certificate that the consumer may eventually obtain. In fact, if the consumer fails to redeem the rebate or reward certificate, the consumer in Schultz may never realize the benefits of the reward. This is unlike the embodiment of claim 1, where the reward in the form of a reduced purchase total is immediately calculated for the consumer at the time of the transaction. The Examiner has failed to explain how receiving a reward certificate at some point after a transaction anticipates the claimed step of *calculating a reduced purchase total for a transaction*.

Second, Examiner has failed to show that Schultz discloses *calculating a reduced purchase total for a transaction if an initial purchase total for the transaction is at least equal to a predetermined purchase total*. Examiner's example merely illustrates that a customer may qualify for a rebate if the customer purchases the product associated with the rebate. Nowhere in the example or other discussion of Schultz is it asserted that, in order to qualify for a rebate associated with a product, a transaction purchase total must be at least equal to a predetermined threshold purchase total. The only requirement that a customer must satisfy in order to qualify for a rebate in Schultz is the purchase of the product associated with the rebate, as acknowledged in Examiner's example. In the example there is a purchase total of \$110 if a customer purchases both products. However, the customer also qualifies for the rebate of each respective product simply by purchasing each respective product, irrespective of any purchase total for the transaction in which a product is purchased.

In Examiner's discussion of Schultz, there is no discussion of a predetermined threshold purchase total to which the actual purchase total may be compared or any assertion that a customer would not qualify for a rebate associated with a product in the transaction unless the initial purchase total for the transaction is at least equal to a predetermined purchase total. The mere fact that a customer may qualify for a rebate if the customer purchases a product associated with the rebate, as Examiner asserts, fails to address the actual limitations of claim 1. Examiner has failed to explain how Schultz, whether in the above example or otherwise, discloses *calculating a reduced purchase total if an initial purchase total of a transaction is at least equal to a predetermined purchase total*.

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Finally, the Examiner has failed to establish that the above feature of claim 1 is inherent in Schultz. A claim is not patentable if a prior art reference inherently possesses all of the features of the claim. In Re Schreiber, 128 F.3d 1473, 44 USPQ2d 1429 (Fed. Cir. 1997). A prior art reference “may anticipate by inherency where it would be appreciated by one of ordinary skill in the art.” Glaxo Inc. v. Novo Pharm Ltd., 52 F.3d 1043, 34 USPQ2d 1565 (Fed. Cir. 1995). However, inherency “may not be established by probabilities or possibilities. The mere fact that a certain thing may be a result from a given set of circumstances is not sufficient.” Continental Can Co. USA, Inc. v. Monsanto Co., 948 F.2d 1264, 20 USPQ2d 1746 (Fed. Cir. 1991). Thus, to support an anticipation rejection based on inherency, it is the burden of the Examiner to provide the factual and technical grounds that establish that the inherent feature necessarily flows from the prior art reference. Ex Parte Levy, 17 USPQ2d 1461 (Bd. Pat. App. & Int. 1990).

In the present Application, Examiner has not made any factual or technical findings as to why the features of claim 1 inherently flow from Schultz. At most, Examiner has provided an example of a result that may allegedly occur in Schultz under a given set of circumstances and even this result is insufficient to anticipate claim 1, as explained above.

#### **1.4. The Claims of Group I are Allowable Over the Cited References**

As described above, the Examiner has failed to provide a prima facie showing of anticipation. In addition, the references of record do not disclose or suggest at least one feature of the claims of Group I.

**1.4.1. The references do not disclose *calculating a reduced purchase for a transaction if an initial purchase total is at least equal to a predetermined purchase total, wherein different products in the transaction are discounted by different percentages.***

##### Rejection Over Admitted Prior Art

Despite the assertions in the Office Action, the Admitted Prior Art does not disclose that it is known to *calculate a reduced purchased total for a transaction if an initial purchase total is*

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*at least equal to a predetermined threshold purchase total, wherein different products in the transaction are discounted by different percentages.*

Examiner asserts that Appellants admitted that the prior art anticipates claim 1 with various statements in the specification and the response to the previous Office Action. In particular, Examiner asserts that Appellants' statement "[i]n the prior art systems sellers were constrained by either having to only offer a discount on a few selected products or offering an across-the-board discount (*e.g.*, 10% off across the board) on everything in a purchase." [Response to Office Action mailed March 15, 2002, page 13, lines 5 – 8]. Even when taken as established, the facts in this statement do not anticipate the above claim features. The embodiment of claim 1 includes calculating a reduced purchase total (in which different products are reduced by different percentage amounts) *if an initial purchase total is at least equal to a predetermined threshold purchase total*. The prior art discussed by Applicants does not disclose or suggest this feature.

As Appellants noted in the specification, it is known in the prior art to offer promotions that allow customers to "obtain X dollars off or X percent off a total purchase of Y dollars". [Specification, page 1, lines 22 – 23]. Another type of discounting method known in the prior art is "discounts or other promotions which apply only to certain product or products" [Specification, page 2, lines 11 – 12]. However, it is not known in the prior art to calculate a reduced purchase total for a transaction (i) if an initial purchase total is at least equal to a predetermined purchase total, *and* (ii) wherein different products in the transaction are reduced by different percentages.

As further noted by Appellants in the specification, "[n]one of the known discounting and promotional techniques has fully addressed the need to balance the attractive features of discounting with preservation of profit margins on the products sold." [Specification, page 2, lines 24 – 26]. For example, the technique of "coupons or promotions which apply only to a certain product or products will do little to attract customers who are not interested in purchasing those products." [Specification, page 2, lines 11 – 12]. Additionally, this technique does not do anything to encourage large purchase totals. The technique of offering X dollars off or X percent off a total purchase of Y dollars has a strong shortcoming as well, in that "across-the-board

discount offers may be disadvantageous to the retailer, since some customers may concentrate their purchases on products which carry a low profit margin. When this occurs, the retailer may find that additional revenues generated by the promotion do not translate into much, if any, additional profit.” [Specification, page 2, lines 13 – 18]. Accordingly, none of the prior art discussed by Appellants discloses the above feature of claim 1.

#### Rejection Over Dlugos

Simply put, in Dlugos there is no description of *calculating a reduced purchase total for a transaction if an initial purchase total is at least equal to a predetermined threshold purchase total, wherein different products in the transaction are reduced by different percentages*. Dlugos does disclose discounting a charge for a transaction. However, the method of discounting the charge for the transaction in Dlugos is limited to applying one or more discounts to the base transaction charge of the transaction. Thus, each and every item included in the transaction of Dlugos is necessarily discounted by the same percentage discount. There is no disclosure or enablement in Dlugos for applying different percentage discounts to different products in a transaction when calculating a reduced transaction charge. In fact, when determining which discount levels to apply to a transaction, Dlugos explicitly describes testing the characteristics of the transaction and, if the transaction characteristics satisfies one or more tests, the discount level corresponding to the satisfied tests is applied to the transaction. [Dlugos, column 4, lines 36 – 62]. Nowhere in Dlugos is it described that that individual components of a transaction may be tested and discount levels applied to the individual components based on the results of such test.

#### Rejection Over Schultz

Schultz likewise does not disclose *calculating a reduced purchase total for a transaction if an initial purchase total is at least equal to a predetermined threshold purchase total, wherein different products in the transaction are reduced by different percentages*.

First, Schultz does not disclose calculating a reduced purchase total under any circumstances. The only method of providing a reward to a customer in Schultz is by periodically sending rebates or reward certificates to the customer based on past qualifying purchases of the customer.

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Second, Schultz does not disclose providing any reward, much less a reduced purchase total, to a customer if an initial purchase total is at least equal to a predetermined threshold purchase total. The only condition disclosed in Schultz for providing a reward to a customer is that the customer purchase the product associated with the reward. Whether that product is purchased as part of a transaction that has a high or low purchase total, or what the purchase total is at all, is irrelevant and not at all discussed in Schultz.

Further, it is worth noting that Schultz is directed to “increasing consumer brand loyalty for manufacturers who participate in the program.” [Schultz, column 4, lines 51 – 53]. Accordingly, Schultz provides rewards for multiple purchases of a manufacturer’s product. A manufacturer is unaffected by a purchase total for a transaction at a retailer. The manufacturer is only concerned with whether the manufacturer’s products are being purchased. Thus, it does not make sense to infer or read into Schultz a condition of a predetermined threshold purchase total, since that is a concern of a retailer and not of a manufacturer, for whose benefit the methods of Schultz are provided.

In conclusion, the Examiner has not set forth a prima facie case of anticipation of the claims of Group I, none of the references disclose the limitations of the claims of Group I, and none of the references possess the advantages conferred by those limitations, as discussed in detail above in Section 1.2 "Advantages of Independent Claim 1". Accordingly, for at least those reasons, the claims of Group I are patentable in view of the cited references.

### **1.5. The Prior Art Cannot Be Combined to Render the Claims of Group I Obvious**

Not only does none of the prior art anticipate the embodiment of claim 1, but the prior art cannot be properly combined such that it would have rendered, at the time of the invention, the embodiment of claim 1 obvious to a person of ordinary skill in the art.

#### **1.5.1. There Is No Suggestion in the Prior Art to Make the Combination**

Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention when there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one

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of ordinary skill in the art. In Re Fine, 5 USPQ2d 1596 (Fed. Cir. 1998); In Re Jones, 21 USPQ2d 1941 (Fed. Cir. 1992). Further, particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed. In re Kotzab, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000).

A finding of obviousness requires that the art contain something to suggest the desirability of the proposed combination. In re Grabiak, 769 F.2d 729, 732 (Fed. Cir. 1985). In the absence of such a showing, there is inadequate support for the position that the proposed modification would prima facie have been obvious. Id. The absence of such a suggestion to combine is dispositive in an obviousness determination. Gambro Lundia AB v. Baxter Healthcare Corp., 110 F.3d 1573, 1579 (Fed. Cir. 1997).

Nothing in the prior art suggests the desirability of combining or modifying the discounting techniques such that Appellants' invention is the result. Dlugos and the Admitted Prior Art disclose only the discounting technique of reducing a purchase total by a fixed percentage if the purchase is of at least a minimum amount. The Admitted Prior Art discloses only the discounting technique of providing discounts on specific products provided those products are in fact purchased. Schultz discloses only the discounting technique of providing a rebate or reward certificate if the product associated therewith is purchased. Absent Appellants' specification, nothing in the prior art by itself would have suggested the combination to a person of ordinary skill in the art.

"A claimed invention is not obvious solely because it is composed of elements that are all individually found in the prior art." Life Technologies, Inc. v. Clontech Laboratories, Inc., 224 F.3d 1320 (Fed. Cir. 2000). "Virtually all inventions are combinations of old elements. Therefore, an examiner or accused infringer may often find every element of a claimed invention in the prior art. If identification of each claimed element in the prior art were sufficient to negate patentability, very few patents would ever issue. Furthermore, rejecting patents solely by finding prior art corollaries for the claimed elements would permit an examiner or accused infringer to use the claimed invention itself as a blueprint for piecing together elements in the prior art to defeat the patentability of the claimed invention. To counter this potential weakness in the obviousness construct, the suggestion to combine requirement stands as a critical safeguard

against hindsight analysis and rote application of the legal test for obviousness.” Yamanouchi Pharmaceutical Co., Ltd. v. Danbury Pharmacal, Inc., 231 F.3d 1339 (Fed. Cir. 2000).

Since no suggestion to combine the references is found in the record, the references cannot be properly combined to establish obviousness of the method of claim 1.

#### **1.5.2. The References are Nonanalogous**

The prior art also cannot be properly combined because the references are non-analogous. In order to rely on a reference as a basis for rejection of the applicant’s invention, the reference must either be in the field of the applicant’s endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned. In re Oetiker, 977 F.2d 1443, 1447 (Fed. Cir. 1998).

The Schultz reference is directed to the field of retail stores and towards the problem of “increasing consumer brand loyalty for manufacturers who participate in the program.” [Schultz, column 4, lines 42 – 44].

On the other hand, the Dlugos reference is directed to the field of calculating transactions for a shipping system and towards the problem of improving “ease and reliability in changing discount rates applied to transaction charges in a shipping system.” [Dlugos, column 1, lines 9 – 12].

Thus, not only is Dlugos not in the field of Appellants’ endeavor (which is the field of retail), it is also not in the field of Schultz.

Further, neither Dlugos nor Schultz is concerned with the problem addressed by the embodiment of claim 1: encouraging larger purchase totals for a transaction while preserving an acceptable profit margin for each individual product in the transaction.

#### **1.6. The Claims of Group I are Directed to Statutory Subject Matter**

The §101 rejection of the claims of Group I is flawed because the Examiner has not made out a prima facie case of unpatentability. Specifically, the Examiner has not shown that any claim of Group I is directed to non-statutory subject matter. In particular, Examiner has not shown that the claims of Group I do not produce a “useful, concrete and tangible result”, which is

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the sole requirement. In fact, the claims of Group I do produce a “useful, concrete and tangible result.”

Further, the Examiner has not provided a proper legal basis for rejecting the claims of Group I as non-statutory. Instead, the Examiner has proposed a novel legal test, which deems the Federal Circuit’s “useful, concrete and tangible result” standard to be insufficient and incomplete.

Finally, the Examiner’s use of a novel legal test for determining the presence of statutory subject matter is an arbitrary and capricious change in PTO policy.

#### **1.6.1. Appellants’ Understanding of the Standard Used by Examiner**

The claims of Group I stand rejected by the Examiner under 35 U.S.C. 101 “because the claimed invention is directed to non-statutory subject matter.” [Final Office Action, mailed December 03, 2002 (Paper No. 19), page 2, paragraph 4]. The Examiner asserts that the claims “are drawn to a method of producing a disembodied data structure.”

As a basis for the §101 rejection, the Examiner states that calculating a purchase total is not a useful, concrete and tangible result “because simply having a computer calculate some number, then having the computer keep that number secret by merely storing the number within some register of its memory chips, never using the number for any further purpose, nor even communicating the number to human beings for the human beings to be able to make some use of it, fails to effect any ‘useful, concrete, and tangible result.’ By way of an example, if applicant’s computer were to instead calculate mere random numbers and secretly store those numbers in its memory chips, rather than secretly storing ‘calculated purchase total’ numbers in its memory chips, there would be no perceptible difference whatsoever in the results effected.” [Final Office Action, mailed December 03, 2002 (Paper No. 19, page 4, paragraph 9].

As another basis for the §101 rejection, the Examiner states that “current Office practice is to reject, as non-statutory under §101 for failure to fall within the technological arts, method claims that fail to require any computer, such as the instant claims. To overcome such a rejection, a positive limitation in the body of the claim is required to recite either a computer, *per se*, or else some other element that would inherently and necessarily require a computer. Note

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that, to overcome such a rejection as non-statutory, such a recitation alone, though *necessary*, may not be *sufficient*.” [Final Office Action, mailed December 03, 2002 (Paper No. 19, page 4 - 5, paragraph 10, emphasis in original)].

Thus, as best as Appellants can understand the basis for the §101 rejection, Examiner appears to be proposing the following novel test for statutory subject matter: that in order to be directed to statutory subject matter, a claim must (i) recite the use for the result of a process, and (ii) be within the technological arts by reciting the use of a computer or computer component within the body of the claim.

#### **1.6.2. The Proper Legal Standard Under Section 101: Useful, Concrete and Tangible Result**

Whether a claim is directed to statutory subject matter under §101 is a question of law. AT & T Corp. v. Excel Communications, Inc., 172 F.3d 1352, 1355, 50 USPQ2d 1447, 1449 (Fed. Cir. 1999).

The proper legal test for the presence of statutory subject matter is only that a claimed process or apparatus produce a “useful, concrete and tangible result.” State Street Bank & Trust Co. v. Signature Fin. Group, Inc., 149 F.3d 1368, 1375, 47 USPQ2d 1596, 1602 (Fed. Cir. 1998), cert. denied, 525 U.S. 1093, 142 L.Ed.2d 704, 119 S.Ct. 851 (1999) (“For purpose of our analysis, as noted above, claim 1 is directed to a machine programmed with the Hub and Spoke software and admittedly produces a ‘useful, concrete, and tangible result.’...This renders it statutory subject matter, even if the useful result is expressed in numbers, such as price, profit, percentage, cost, or loss.”); AT & T Corp., 172 F.3d at 1361 (“[T]he focus is understood to be not on whether there is a mathematical algorithm at work, but on whether the algorithm-containing invention, as a whole, produces a tangible, useful result.”). See also, State Street Bank, 149 F.3d at 1373 (“In Alappat, we held that data, transformed by a machine through a series of mathematical calculations to produce a smooth waveform display on a rasterizer monitor, constituted a practical application of an abstract idea...because it produced ‘a useful,

concrete and tangible result' -- the smooth waveform"); *State Street Bank*, 149 F.3d at 1373 ("in *Arrhythmia Research Technology Inc. ...*, we held that the transformation of electrocardiograph signals from a patient's heartbeat by a machine through a series of mathematical calculations constituted a practical application of an abstract idea...because it corresponded to a useful, concrete and tangible thing -- the condition of a patient's heart" (citations omitted)).

It is noted that the threshold for utility is not high – an invention is "useful" under §101 if it is capable of providing some identifiable benefit. *Juicy Whip Inc. v. Orange Bang Inc.*, 185 F.3d 1364, 1367, 51 USPQ2d 1700, 1703 (Fed. Cir. 1999). This is to be contrasted with an invention which "is useful only in the sense that it may be an object of scientific research." *Brenner v. Manson*, 383 U.S. 519, 532 (1966). The invention must have "substantial utility", in other words a "specific benefit" which "exists in currently available form." *Id.* at 534 – 35.

While other criteria, if satisfied, may be useful in indicating the presence of a "useful, concrete and tangible result" (and therefore indicate that a claim is directed to statutory subject matter), the absence of such criteria does not preclude a finding of statutory subject matter. The "ultimate issue" always has been whether a claim as a whole is drawn to statutory subject matter. *See, AT & T Corp.*, 172 F.3d at 1359. Such other criteria are not requirements, but merely some of several ways that can demonstrate that an invention produces a useful, concrete and tangible result.

For example, the reciting of physical limitations may be helpful, but not necessary to render a claim statutory. *AT & T Corp.*, 172 F.3d at 1359 ("Whatever may be left of the earlier test, if anything, this type of physical limitations analysis seems of little value..."). Even where a claim incorporates a mathematical algorithm, in contrast to focusing on a physical limitations inquiry, the inquiry deemed the "ultimate issue" "focuses on whether the mathematical algorithm is applied in a practical manner to produce a useful result." *AT & T Corp.*, 172 F.3d at 1359 – 60.

In another example, a physical transformation by a claimed process is one example (but not a requirement) of how a mathematical algorithm may bring about a useful application. *AT & T Corp.*, 172 F.3d at 1357. *See also, Diamond v. Diehr*, 450 U.S. 175, 192, 67 L.Ed.2d 155, 169, 101 S.Ct. 1048, 1059 – 60 (1981) (the "e.g." signal denotes that physical transformation is an example, not an exclusive requirement for satisfying §101); *Arrhythmia Research Tech.*, 958

F.2d 1053, 1060, 22 USPQ2d 1033, 1039 (Fed. Cir. 1992) (the transformation simply confirmed that Arrhythmia's method claims satisfied §101 because the method produced a number which had specific meaning – a useful, concrete, tangible result – not a mathematical abstraction).

Certain features are not helpful to the proper analysis, and have no bearing on the presence of statutory subject matter. For example, whether a result of a claim is expressed in numbers makes no difference. State Street Bank, 149 F.3d at 1374, (“[E]ven if the useful result is expressed in numbers, such as price, profit, percentage, cost or loss,” the invention that produces that useful result is statutory); Arrhythmia, 958 F.2d at 1060 (“That the product is numerical is not a criterion of whether the claim is directed to statutory subject matter.”).

When a mathematical algorithm included within a claimed process is “applied to produce a number which had specific meaning – a useful, concrete, tangible result – not a mathematical abstraction”, that process claim satisfies §101. AT & T Corp., 172 F.3d at 1357, (citing Arrhythmia, 958 F.2d at 1060). Under the proper standard, claims have been found statutory because they produced useful results such as “a final share price”, State Street Bank, 149 F. 3d at 1373; a “value of a PIC indicator” which represents “information about the call recipient’s PIC”, AT & T Corp., 172 F.3d at 1357; and a condition of a patient’s heart, Arrhythmia, 958 F.2d at 1060.

In discussing the proper legal test, the Court of Appeals for the Federal Circuit has also acknowledged the judicially-created exceptions to statutory subject matter. See, e.g., AT & T Corp., 172 F.3d at 1355 (“[The Supreme Court] has specifically identified three categories of unpatentable subject matter: ‘laws of nature, natural phenomena, and abstract ideas.’” (quoting Diamond v. Diehr, 450 U.S. at 185)); State Street Bank, 149 F.3d at 1373. The Court also clarified that “certain types of mathematical subject matter, standing alone, represent nothing more than abstract ideas until reduced to some type of practical application, i.e., ‘a useful, concrete and tangible result.’” State Street Bank, 149 F.3d at 1373. Clearly, a claimed invention that satisfies this proper standard for statutory subject matter (e.g., by producing a useful, concrete and tangible result) cannot, by definition, also fall within one of the judicially-created exceptions to statutory subject matter (e.g., abstract ideas).

### 1.6.3. Claim 1 Meets the Proper Legal Standard Under Section 101

Claim 1 produces a useful, concrete and tangible result, is therefore limited to a practical application, and the rejection of claim 1 for lack of statutory subject matter cannot stand.

Briefly, claim 1 includes the limitation of *calculating a reduced purchase total for the transaction*. As explained in Section 1.2 and the Specification of the present application, this feature produces a useful, concrete and tangible result – a reduced purchase total that may be charged to a customer, thus providing a reward to the customer at the time of the transaction and serving as a motivator to the customer, that may be used as a reward by a seller to influence the customer's behavior while the customer is selecting products to include in the transaction.

In this sense, the reduced purchase total of claim 1 is like the “final share price” deemed to be a useful, concrete and tangible result in State Street Bank. A reduced purchase total may also be, e.g., displayed at a point-of-sale terminal, printed on a register receipt and / or stored for subsequent accounting purposes. As Appellants noted in the Response to the Office Action mailed March 15, 2002, these example uses need not be recited, just as no uses were required to be recited in the claims in State Street Bank. As Appellants further noted in the Response to the Office Action mailed March 15, 2002: “the independent claim at issue in the State Street Bank case, as upheld by the Federal Circuit, recited a machine which functioned to determine a final share price of a mutual fund. The independent claim did not recite any specific application of the share price.” Accordingly, Examiner's reasoning is contrary to Federal Circuit case law.

Similarly, the claims held statutory in AT & T v. Excel recited only “generating a message record” which included certain information. No further “use” of the message record was recited in the claims.

Moreover, the scope of claim 1 as presented encompasses a variety of specific implementations of the claimed process. Certain of these embodiments implicate the use of devices (such as computers or data processing devices) in the processes. These “device-based” species clearly fall within the broader generic definition of the claimed processes. Given that utility for a genus may be established through recitation of utility of a species within that genus, a determination that the generically claimed process of claim 1 lacks utility is clearly improper.



#### **1.6.4. The Examiner's Reasons Cannot Support a Rejection Under Section 101**

Based on the Examiner's response to Appellants arguments in the Response to the Office Action mailed March 15, 2002, Appellants understand that the rejection of claim 1 for failure to be directed to statutory subject matter is based on the following proposed legal standard: For a claimed process to be statutory, not only does the process have to produce a useful, concrete and tangible result, but the claimed process must *also* recite a computer within the body of the claim (*i.e.*, the claim cannot encompass an embodiment that may be performed in the human mind, without aid of a computer).

The Examiner's proposed novel legal test for statutory subject matter cannot support a rejection under §101.

First, as discussed in Section 1.6.4 above, claim 1 does produce a useful, concrete and tangible result, as that standard is applied by the Federal Circuit. Examiner's reasoning that claims require "[p]ost solution activity" is incorrect. As discussed above, the Federal Circuit has held that "even if the useful result is expressed in numbers, such as price, profit, percentage cost or loss", the invention that produces that result is nevertheless statutory." State Street Bank, 149, F.3d at 1374.

Further, Appellants note that Examiner appears to be adding non-existent limitations to claim 1 by asserting that the reduced purchase total is "[kept] secret" or "merely stored". Claim 1 does not recite keeping the reduced purchase total secret or storing the reduced purchase total. Claim 1 recites *calculating a reduced purchase total for a transaction*, which is a number that has a practical application, and is thus directed to statutory subject matter under current Federal Circuit case law.

Second, the Examiner incorrectly argues that a claim may not cover an embodiment which can be performed mentally. Its inclusion as a basis for rejection is nothing less than an attempt to resurrect an invalidated legal theory.

That a claimed process might read on a mentally performed embodiment does not render a claim non-statutory. "The inclusion in a patent of a claim to a process that may be performed by a person, but that is also capable of being performed by a machine, is not fatal to patentability." Diamond v. Diehr, 450 U.S. 175, 67 L.Ed.2d 155, 101 S.Ct. 1048 (1981). Further, the mere fact that some or all of the steps of a method "may be carried out in or with the

aid of the human mind” does not render a sequence of operational steps non-statutory under 35 U.S.C. §101. *In re Musgrave*, 431 F.2d 882, 57 C.C.P.A. 1352 (C.C.P.A. 1970). The court in *Musgrave* rejected the Examiner’s reasoning that the claims were non-statutory because they “include no physical steps but set for the merely a method for processing data which does not require any tangible device or apparatus to carry out the method and hence could be carried out mentally.” *Musgrave*, 431 F.2d at 886. See also, *In re Prater*, 415 F.2d 1378, 56 C.C.P.A. 1376 (C.C.P.A. 1968) (“patent protection for a process disclosed as being a sequence or combination of steps, capable of performance without human intervention...is not precluded by the mere fact that the process could alternatively be carried out by mental steps.”).

Further, the Examiner appears to be inappropriately mingling the §101 statutory rejection with a mental process rejection. Such a mingling of these two distinct rejection has been explicitly rejected by the United States Court of Customs and Patent Appeals (the predecessor to the Federal Circuit, “CCPA” herein): “the language which the examiner has quoted [in support of a §101 rejection] was written [by the CCPA] in answer to ‘mental steps’ rejections and was not intended to create a generalized definition of statutory subject matter. Moreover, it was not intended to form a basis for a new §101 rejection as the examiner apparently suggests.” *In Re Toma*, 575 F.2d 872, 197 USPQ 852 (CCPA 1978). The Federal Circuit has recently reiterated the status of the long-discarded “mental steps” doctrine, albeit in an unpublished opinion: “[t]he existence of mental steps in the claims or specification of a patent do not, in and of themselves, invalidate the patent.” *Musco Corp. v. Qualite Inc.*, 106 F.3d 427 (Fed. Cir. 1997) (unpublished).

Finally, the Examiner’s reason that the claim must recite, in the body, “a computer, per se, or else some other element that would inherently and necessarily require a computer” is not a requirement or a substitute for the proper legal standard under §101.

The reciting of a computer or other element that would inherently and necessarily require a computer cannot be required to render a claimed process statutory. The reciting of physical limitations may be helpful, but are not necessary to render a claim statutory. *AT & T Corp.*, 172 F.3d at 1359 (“Whatever may be left of the earlier test, if anything, this type of physical limitations analysis seems of little value...”). Even where a claim incorporates a mathematical algorithm, in contrast to focusing on a physical limitations inquiry, the proper inquiry “focuses

on whether the mathematical algorithm is applied in a practical manner to produce a useful result.” AT & T Corp., 172 F. 3d at 1359 – 60.

It is a misunderstanding of Federal Circuit case law to contend that process claims lacking physical limitations are not patentable subject matter. “Since the claims at issue in this case are directed to a process in the first instance, a structural inquire is unnecessary.” AT & T Corp., 172 F.3d at 1359. Further, it is well settled that one need not claim in a patent every device required to enable the invention to be used. See, e.g., Asyst Technologies, Inc., v. Empak, Inc., 268 F.3d 1364 (Fed. Cir. 2001).

The Examiner’s type of analysis may derive from a prior test for statutory subject matter which has since been discredited. AT & T Corp., 172 F.3d at 1359 (“Whatever may be left of the earlier test, if anything, this type of physical limitations analysis seems of little value...”). This type of physical limitations analysis is of little value under §101 because “the mere fact that a claimed invention involves inputting numbers, calculating numbers, outputting numbers, and storing numbers, in and of itself, would not render it non-statutory subject matter, unless, of course, its operation does not produce a ‘useful, concrete and tangible result.’” AT & T Corp., 172 F.3d at 1359.

Finally, it is clear that, in the past as well as today, many types of inventions are patentable even though they do not involve any type of “computer.”

#### **1.6.5. The Examiner’s Standard is an Arbitrary and Capricious Change in PTO Policy**

The Examiner’s proposed two-part test is a radical departure from the PTO’s prior application of the law in a §101 analysis and is therefore arbitrary and capricious. “Under the Administrative Procedure Act (APA), a court may set aside agency action found to be ‘arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with the law.’ 5 U.S.C. §706(2)(A). ...agency action is arbitrary and capricious if it departs from agency precedent without explanation.” Ramaprakash v. FAA, 346 F.3d 1121 (D.C. Circuit 2003). The PTO is governed by the APA. In re Lee, 277 F.3d 1338 (Fed. Cir. 2002); Dickinson v. Zurko, 527 U.S. 150, 50 USPQ2d 1930 (1999).

*Group I*

“Agencies are free to change course as their expertise and experience may suggest or require, but when they do so they must provide a ‘reasoned analysis indicating that prior policies and standards are being deliberately changed, not casually ignored.’” Ramaprakash v. FAA, quoting Greater Boston Television Corp. v. FCC, 444 F.2d 841, 852 (D.C. Cir. 1993). “An agency’s failure to come to grips with conflicting precedent constitutes ‘an inexcusable departure from the essential requirement of reasoned decision making.’” Ramaprakash v. FAA, quoting Columbia Broad. Sys. v. FCC, 454 F.2d 1018, 1027 (D.C. Cir. 1971). Although the APA does not require agency officials to reach similarly or interpret regulations identically in every case, it does prohibit an agency from adopting significantly inconsistent policies that result in the reaction of conflicting lines of precedent governing the identical situation. Davila-Bardalez v. INS, 27 F.3d 1 (1<sup>st</sup> Cir. 1994). In other words, an agency must follow its own precedent. If an agency departs from its own precedent, it must articulate reasons for the change in policy or reasons why a conclusion that departs from the agency’s precedent is being reached in a particular case.

To the present time, the PTO has regularly and properly allowed patents to issue which include method claims that do not recite any computer or computer component. A quick search of any patent database reveals the undeniable truth of this statement. Appellants have received numerous patents from the PTO in which no requirement that an allowed method claim include a recitation of a computer or computer component had been instituted. Accordingly, the application to the present case of the “**current Office practice...**to reject, as non-statutory under §101 for failure to fall within the technological arts, method claims that fail to require any computer” is an arbitrary and capricious agency action. The Examiner has not provided any explanation or reasoning articulating the reasons for the change in policy or why a new and different policy is being applied to the present case.

Further, an agency’s “duty to explain a departure from precedent is not discharged” by the agency’s reliance on a few of the agency’s recent decisions. Hatch v. FERC, 654 F.2d 825, 834 (D.C. Cir. 1981). See also, Pittsburgh Press Co. v. NLRB, 977 F.2d 652, 660 (D.C. Cir. 1992) (“We do not think it enough to say that this latest decision is consistent with the general drift of NLRB precedent, as it is that very drift that troubles us.”). Accordingly, even if the Examiner and / or the PTO had begun to apply the new two-part test in some applications before Appellants

*Group I*

present application, this fact would not discharge the PTO's duty to articulate reasons for the change in PTO policy as applied in the present case.

As the D.C. Circuit has observed, “‘the core concern underlying the prohibition of arbitrary and capricious agency action’ is that agency ‘ad hocery’ is impermissible.” Ramaprakash v. FAA, quoting Pacific N.W. Newspaper Guild, Local 82 v. NLRB, 877 F.2d 998, 1003 (D.C. Cir. 1989). “‘When an agency departs from established precedent without reasoned explanation, its decision will be vacated as arbitrary and capricious.’” Ramaprakash v. FAA, quoting ANR Pipeline Co. v. FERC, 71 F.3d 897, 901 (D.C. Cir. 1995).

For the reasons stated above, the application of the new two-part test which requires that a method claim recite a computer or computer component in order to be statutory under §101, when no such requirement was imposed in hundreds of prior patents and prior decades and no reasoned explanation for the change in policy has been provided, is an arbitrary and capricious agency action and should be vacated.

## SEPARATE ARGUMENT OF PATENTABILITY

### 2. Group II

Group II includes dependent claims **5 and 60**. Dependent claim **5** depends from independent claim **1**, and dependent claim **60** depends from independent claim **32**. Independent claims **1 and 32** were discussed above in Group I.

Accordingly, all arguments above with respect to Group I are equally applicable to Group II, and the claims of Group II are patentable at least for the same reasons given above for Group I. Moreover, additional arguments are provided below for the patentability of the claims of Group II, regardless of the patentability of the claims of Group I.

The §102 rejections of the claims of Group II are flawed because the Examiner has not made out a prima facie case of anticipation of any claim of Group II. The Examiner has not shown all limitations of any claim to be disclosed or suggested by the references.

Further, the references do not anticipate the claims of Group II because the references do not disclose all of the limitations of the claims of Group II.

Further still, no claim of Group II can be deemed obvious in light of the references of record, alone or in combination, because the cited references cannot be interpreted in a manner that would disclose or suggest the limitations of any pending claim.

The §101 rejection of the claims of Group II is flawed because the claims of Group II satisfy the proper legal test for statutory subject matter: they produce a useful, concrete and tangible result.

Further, the §101 rejection of the claims of Group II has no basis in the law.

Further still, the application of the novel legal test as the basis for the §101 rejection is an arbitrary and capricious agency action that should be vacated.

*Group II*

## 2.1. Dependent Claims 5 and 60

Dependent claims **5 and 60** are directed to a method for calculating a purchase total for a transaction, in which a plurality of product identifiers that each represent a respective product to be purchased are received. An initial purchase total is calculated for the transaction based on respective first prices for each of the products to be purchased and it is determined whether the initial purchase total is at least equal to a predetermined threshold purchase total. If the initial purchase total is at least equal to the predetermined threshold purchase total, a reduced purchase total for the transaction is calculated based on respective second prices for each of the products to be purchased. At least one of the respective second prices is lower than the corresponding first price for the product to be purchased.

In dependent claim **5**, at least one of the respective second prices is calculated based on at least one of (i) the first price, (ii) a cost associated with the corresponding product, and (iii) a minimum profit amount.

In both dependent claims **5 and 60**, calculating the reduced purchase total, a percentage difference between one first price and the corresponding second for a first product to be purchased in the transaction is different than a percentage difference between another first price and the corresponding second price of a second product to be purchased in the transaction.

Additionally, in both dependent claims **5 and 60**, the calculated reduced purchase total is applied as a final purchase total for the transaction.

For brevity, the discussion below refers to method claim **5**, but the arguments are likewise applicable to dependent claim **60**.

## 2.2. Advantages of Dependent Claim 5

The embodiment of claim **5** provides several advantages not even recognized, much less disclosed or suggested, by the prior art of record, either alone or in combination.

In addition to the advantages discussed above in Section 1.2, by *applying the reduced purchase total as a final purchase total for the transaction*, the embodiment of claim **5** allows a

customer to tangibly realize an earned benefit at the time of a transaction in which the benefit is earned. Accordingly, the incentive of the reward (the reduced purchase total) is very effective in encouraging the customer to perform the actions necessary to earn the reward (purchase a sufficient amount such that the initial purchase total is at least equal to a predetermined threshold purchase total). The customer, while selecting the products in the store, will be motivated by the opportunity to earn reduced prices for the products being purchased and thus reduce his out-of-pocket cost when checking out the products at the point-of-sale.

A great many more advantageous and diverse uses of the claimed invention, both explicit and implicit in the present Application, are possible and would be apparent to those of skill in the art based on the Appellants' disclosure.

### **2.3. No Prima Facie Showing of Anticipation of the Claims of Group II**

A reading of the rejections of the claims of the Group II reveals that the Examiner has consistently ignored or misinterpreted the limitations of the claims. Several limitations are not disclosed by the references of record. Accordingly, the Examiner has not presented a prima facie case of anticipation of any claim of the Group.

In general, the references fail to disclose (i) *calculating a reduced purchase total for a transaction if an initial purchase total is at least equal to a predetermined threshold purchase total, where different products in the transaction are discounted by different percentages*, much less *applying the reduced purchase total as a final purchase total for the transaction*, or (ii) *applying the reduced purchase total as a final purchase total for the transaction*.



**2.3.1. No Showing that the References disclose *calculating a reduced purchase total for a transaction if an initial purchase total is at least equal to a predetermined threshold purchase total, where different products in the transaction are discounted by different percentages.***

As discussed above in Section 1.3.1, the Examiner has not shown that the Admitted Prior Art, Dlugos, or Schultz disclose *calculating a reduced purchase total for a transaction if an initial purchase total is at least equal to a predetermined threshold purchase total, where different products in the transaction are discounted by different percentages.*

The significant advantages of this limitation are discussed in Section 2.2 above. In summary, this limitation allows a retailer to encourage large transaction purchase totals while maintaining an acceptable profit margin for each individual product in the transaction.

**2.3.2. No Showing that the References disclose *applying the reduced purchase total as a final purchase total for the transaction.***

Further, the Examiner has not shown that the Admitted Prior Art, Dlugos, or Schultz disclose *applying the reduced purchase total as a final purchase total for the transaction.*

The Examiner has utterly failed to address this particular limitation in the statement of the rejection.

As discussed in Section 1.3.1, none of Examiner's characterizations of the prior art disclose *calculating a reduced purchase total for a transaction if an initial transaction is at least equal to a predetermined threshold purchase total, wherein different products are discounted by different percentages.* Accordingly, if the Examiner's reasoning is insufficient to show that the references disclose calculating a reduced purchase total in the manner claimed, the Examiner's reasoning is equally insufficient to show that the references disclose *applying such a calculated reduced purchase total as a final purchase total for the transaction.*

The significant advantages of this limitation are discussed in Section 2.2 above. In summary, this limitation allows a customer participating in the transaction to realize the benefits of a discount at the time of a transaction.

## **2.4. The Claims of Group II are Allowable Over the Cited References**

As described above, the Examiner has failed to provide a prima facie showing of anticipation for the claims of Group II. In addition, the prior art references do not anticipate the claims of Group II.

### **2.4.1. The references do not disclose *calculating a reduced purchase total for a transaction if an initial purchase total is at least equal to a predetermined threshold purchase total, where different products in the transaction are discounted by different percentages.***

As discussed in Section 1.4.1, despite assertions made by the Examiner, none of the prior art discloses *calculating a reduced purchase total for a transaction if an initial purchase total is at least equal to a predetermined threshold purchase total, where different products in the transaction are discounted by different percentages*. In the Admitted Prior Art, only reducing a purchase total by a fixed percentage, such that each product in the transaction is discounted by the same percentage, is known. Similarly, in *Dlugos*, an entire transaction is reduced by a fixed percentage if a discount level is applied. Finally, in *Schultz*, no reduced purchase total is calculated at all, much less if the condition of an initial purchase total being at least equal to a predetermined purchase total is satisfied.

### **2.4.2. The references do not disclose *applying the reduced purchase total as a final purchase total for the transaction.***

As discussed in Section 1.4.1 and in Section 2.4.1, despite assertions made by the Examiner, none of the references disclose *calculating a reduced purchase total* in the manner claimed. Consequently, the references also do not disclose *applying such a calculated reduced purchase total as a final purchase total for the transaction*.

In conclusion, the Examiner has not set forth a prima facie case of anticipation of the claims of Group II, none of the references disclose the limitations of the claims of Group II, and  
*Group II*

none of the references possess the advantages conferred by those limitations, as discussed in detail above in Section 2.2 "Advantages of Dependent Claim 5". Accordingly, for at least those reasons, the claims of Group II are patentable in view of the cited references.

**2.5. The Prior Art Cannot Be Combined to Render the Claims of Group II Obvious**

As discussed in Section 1.5, the prior art references cannot be combined or modified in any manner that would render the claims of Group II obvious at least because (i) there is no suggestion in the record to make the combination or modification, and (ii) the references are non-analogous.

**2.6. The Claims of Group II are Directed to Statutory Subject Matter**

The Examiner's rejection of the claims of Group II is flawed because the Examiner has not made out a prima facie case of unpatentability of any claim of Group II. Specifically, the Examiner has not shown that any claim of Group II can be deemed to be directed to non-statutory subject matter. The Examiner's rejection of the claims of Group II is further flawed because it has no basis in the law. The Examiner's rejection is further flawed because it is an arbitrary and capricious change in agency policy, with no reasoned explanation being provided for the change in policy.

Further, the claims of Group II are directed to statutory subject matter because they meet the definitive test for statutory subject matter: the claims produce a useful, concrete and tangible result. In addition to the useful, concrete and tangible result of the claims of Group I, the claims of Group II produce the useful, concrete and tangible result of *applying the reduced purchase total as a final purchase total for the transaction* and are thus directed to statutory subject matter.

### **2.6.1. Appellants' Understanding of the Standard Used by Examiner**

The claims of Group II stand rejected by the Examiner under 35 U.S.C. 101 “because the claimed invention is directed to non-statutory subject matter.” [Final Office Action, mailed December 03, 2002 (Paper No. 19), page 2, paragraph 4]. The Examiner asserts that the claims “are drawn to a method of producing a disembodied data structure.” Specifically, the Claims of Group II stand rejected under the same proposed two-part test discussed above in Section 1.6.1.

### **2.6.2. The Proper Legal Standard Under Section 101: Useful, Concrete and Tangible Result**

Whether a patent claim is directed to statutory subject matter under 35 U.S.C. §101 is a question of law. AT & T Corp., 172 F.3d 1352 at 1355. As discussed above in Section 1.6.2, the proper legal test for the presence of statutory subject matter is only that a claimed process or apparatus provide a “useful, concrete, and tangible result.”

### **2.6.3. Claim 5 of Meets the Proper Legal Standard**

As discussed above in Section 1.6.3, claim 1 (from which claim 5 depends) produces a useful, concrete and tangible result. Specifically, *calculating a reduced purchase total* is a useful, concrete and tangible result. Claim 5 includes the additional limitation of *applying the reduced purchase total as a final purchase total for the transaction*. As explained in Section 2.2, this limitation produces a useful, concrete and tangible result – a reduction in a customer’s out-of-pocket costs at the time of the transaction.

Moreover, the scope of claim 5 as presented encompasses a variety of specific implementations of the claimed process. Certain of these embodiments implicate the use of devices (such as computers or data processing devices) in the processes. These “device-based” species clearly fall within the broader generic definition of the claimed processes. Given that

utility for a genus may be established through a recitation of utility of a species within that genus, a determination that the generically claimed process of claim 5 lacks utility is clearly improper.

#### **2.6.4. The Examiner's Reasons Cannot Support a Rejection Under Section 101**

The Examiner relies on the same reasons (discussed in Section 1.6.4 above) in rejection claim 5 as were relied on in the rejection of claim 1. The Examiner's reasons for the rejection of claim 5 are based on an incorrect legal standard, as discussed in Section 1.6.4 and Section 1.6.5. Since claim 5 satisfies the correct legal standard, the rejection should be reversed.

Further, it is worth noting that one of Examiner's reasons for rejecting claim 5 is "the invention, *as claimed*, produces no useful, tangible, and concrete results, because simply having a computer calculate some number, then having the computer keep that number a secret be merely storing the number within some register of its memory chips, never using the number for any further purpose, nor even communicating the number to human beings for the human beings to be able to makes some use of it, fails to effect any 'useful, concrete, and tangible result.'" [Final Office Action, page 4, paragraph 9, emphasis in original]. Yet, as Appellants expressly pointed out in the Response to the Office Action mailed March 15, 2003 (page 9, last paragraph), the claims of Group II, do recite "using the number" by *applying the reduced purchase total as a final purchase total for the transaction*.

Thus, in addition to the fact that Examiner's reasoning is incompatible with the law, the Examiner's reasoning is inapplicable to the claims of Group II since the claims do in fact explicitly recite "using the number". The Examiner utterly failed to respond to Appellants argument regarding this limitation, simply maintaining the general rejection of the claims of Group II under the same reasoning as was provided for the claims of Group I.

For all of the above reasons, the proper legal standard for statutory subject matter was not applied to claim 5, which is directed to statutory subject matter.

**2.6.5. The Examiner's Standard is an Arbitrary and Capricious Change in PTO Policy**

As discussed in Section 1.6.6 above, the application of the new two-part test which requires that a method claim recite a computer or computer component in order to be statutory under §101, when no such requirement was imposed in hundreds of prior patents and no reasoned explanation for the change in policy has been provided, is an arbitrary and capricious agency action and should be vacated.

## SEPARATE ARGUMENT OF PATENTABILITY

### 3. Group III

Group III includes dependent claim 70. Dependent claim 70 depends from independent claim 32. Independent claim 32 was discussed above in Group I. Accordingly, all arguments above with respect to Group I are equally applicable to Group III, and the claims of Group III are patentable at least for the same reasons given above for Group I. Moreover, additional arguments are provided below for the patentability of the claims of Group III, regardless of the patentability of the claims of Group I.

#### 3.1. Dependent Claim 70

Dependent claim 70 is directed to a method for calculating a purchase total for a transaction, in which a plurality of product identifiers that each represent a respective product to be purchased are received. An initial purchase total is calculated for the transaction based on respective first prices for each of the products to be purchased and it is determined whether the initial purchase total is at least equal to a predetermined threshold purchase total. If the initial purchase total is at least equal to the predetermined threshold purchase total, a reduced purchase total for the transaction is calculated based on respective second prices for each of the products to be purchased. At least one of the respective second prices is lower than the corresponding first price for the product to be purchased. At least one of the respective second prices is calculated based on at least one of (i) the first price, (ii) a cost associated with the corresponding product, and (iii) a minimum profit amount.

The predetermined threshold purchase total is selected based on purchasing history data associated with a customer that is associated with the transaction.

*Group III*

### **3.2. Advantages of Dependent Claim 70**

The embodiments of claim 70 provide several advantages not even recognized, much less disclosed or suggested, by the prior art of record, either alone or in combination.

In addition to the advantages discussed above with respect to Group I, in Section 1.2 above, the embodiment of claim 70 is advantageous in that it allows a seller to reward customers of the seller's choosing (*e.g.*, frequent customers and / or customers who spend over a predetermined amount within a predetermined period of time), thus providing further opportunity for the seller to influence the customers' behavior. For example, a seller may choose to select lower threshold purchase totals for customers who come into the store at least twice a week, who spend at least \$250 per month with the seller, and / or who otherwise exhibit behavior desirable to the seller.

A great many more advantageous and diverse uses of the claimed invention, both explicit and implicit in the present Application, are possible and would be apparent to those of skill in the art based on the Appellants' disclosure.

### **3.3. No Prima Facie Showing of Anticipation of Claim 70**

A reading of the rejections of claim 70 reveals that the Examiner has consistently ignored or misinterpreted the limitations of the claim. Several limitations are not disclosed by the references of record. Accordingly, the Examiner has not presented a prima facie case of anticipation of claim 70.

In general, the Examiner has failed to show that the references disclose (i) *calculating a reduced purchase total for a transaction if an initial purchase total is at least equal to a predetermined threshold purchase total, where different products in the transaction are discounted by different percentages, much less applying the reduced purchase total as a final purchase total for the transaction*, or (ii) *selecting a predetermined threshold purchase total based on purchasing history data associated with a customer that is associated with the transaction*.



**3.3.1. No Showing that the References disclose *calculating a reduced purchase total for a transaction if an initial purchase total is at least equal to a predetermined threshold purchase total, where different products in the transaction are discounted by different percentages.***

As discussed above in Section 1.3.1, the Examiner has not shown that the Admitted Prior Art, Dlugos, or Schultz disclose *calculating a reduced purchase total for a transaction if an initial purchase total is at least equal to a predetermined threshold purchase total, where different products in the transaction are discounted by different percentages.*

The significant advantages of this limitation are discussed in Section 1.2 above. In summary, this limitation allows a retailer to encourage large transaction purchase totals while maintaining an acceptable profit margin for each individual product in the transaction.

**3.3.2. No Showing That The References Suggest *selecting a predetermined threshold purchase total based on purchasing history data associated with a customer that is associated with the transaction.***

The Examiner has utterly failed to address the limitation of claim 70 of *selecting a predetermined threshold purchase total based on purchasing history data associated with a customer that is associated with the transaction.*

With respect to the Admitted Prior Art, the Examiner has failed to show how any of Appellants' assertions regarding the prior art anticipate selecting a predetermined threshold purchase total based on purchasing history data. Appellants' assertions merely admit that it was known to offer "X per cent off all purchases made on a given day or all purchases made on that day of over a given amount". However, Examiner has not provided any reasoning of how this statement, or any other statement made by Appellants, anticipates the additional limitation of *selecting the threshold purchase total based on purchasing history data associated with the customer.*

With respect to Dlugos, the Examiner has failed to show how the disclosure that Dlugos applies multiple discount levels to a transaction "depending on the carrier a users [sic] selects, as

well as the locality to which the user is shipping each particular package” event hints at, much less discloses, selecting a threshold purchase total based on purchasing history data.

With respect to Schultz, as discussed in Section 1.3.1, the Examiner has failed to show that Schultz discloses any threshold purchase total at all, much less *selecting a threshold purchase total based on purchasing history data associated with a customer*. The Examiner’s assertions merely indicate that a rebate or reward certificate is provided to a customer if the customer purchases a product associated with the rebate or reward certificate. However, the condition of purchasing a product associated with a reward is not equivalent to the condition of an initial purchase total being at least equal to a predetermined threshold purchase total. Further, there is no indication in Schultz, nor any assertion to this effect made by Examiner, that any condition of qualifying for a reward or rebate certificate is selected based on purchasing history data associated with a customer.

### **3.4. Dependent Claim 70 is Allowable Over the Cited References**

As described above, the Examiner has failed to provide a prima facie showing of anticipation. In addition, the references cannot be combined in any manner that would render the claims of the Group anticipated.

**3.4.1. The references do not disclose *calculating a reduced purchase total for a transaction if an initial purchase total is at least equal to a predetermined threshold purchase total, where different products in the transaction are discounted by different percentages*.**

As discussed in Section 1.4.1, despite assertions made by the Examiner, none of the prior art discloses *calculating a reduced purchase total for a transaction if an initial purchase total is at least equal to a predetermined threshold purchase total, where different products in the transaction are discounted by different percentages*. In the Admitted Prior Art, only reducing a

purchase total by a fixed percentage, such that each product in the transaction is discounted by the same percentage, is known. Similarly, in *Dlugos*, an entire transaction is reduced by a fixed percentage if a discount level is applied. Finally, in *Schultz*, no reduced purchase total is calculated at all, much less if the condition of an initial purchase total being at least equal to a predetermined purchase total is satisfied.

**3.4.2. The References Do Not Disclose *selecting a predetermined threshold purchase total based on purchasing history data associated with a customer that is associated with the transaction.***

None of the references even hint at *selecting a predetermined threshold purchase total*, much less doing so *based on purchasing history data associated with a customer that is associated with the transaction.*

The Admitted Prior Art merely discloses that it is known to provide “X per cent off all purchases made on a given day or all purchases made on that day of over a given amount.” However, nowhere in the Admitted Prior Art is it disclosed that the “given amount” that qualifies a customer for a discount may be selected based on purchasing history associated with a customer.

*Dlugos* also does not disclose *selecting a predetermined threshold purchase total...based on purchasing history data associated with a customer.* The closest disclosure in *Dlugos* that is relevant to this limitation is the disclosure that, in testing whether a transaction qualifies for a discount level, one of the tests may comprise a test “to determine if the dollar amount of charges previously billed is greater than a threshold M2.” [*Dlugos*, column 4, lines 53 – 55]. However, this passage at most discloses that purchasing history data may be taken into account to determine whether a transaction qualifies for a discount level. The predetermined threshold amount is part of the test: in order for a transaction to qualify for a discount level, the amount of charges previously billed must be greater than a threshold amount. There is no disclosure that a threshold purchase total may be selected based on the amount of charges previously billed or other purchasing history data. For example, there is no disclosure that if the amount of charges previously billed is a first amount then a first threshold is selected but if the amount of charges previously billed is a second amount then a second threshold is selected. Accordingly, *Dlugos*

does not disclose *selecting a predetermined threshold purchase total...based on purchasing history data associated with a customer.*

Schultz does not disclose *a predetermined threshold purchase total* being involved in any process, much less *selecting a predetermined threshold purchase total* based on any factor, much less *selecting a predetermined threshold purchase total based on purchasing history data associated with a customer.* As discussed in Section 1.4.1 above, the purchase total in Schultz is completely irrelevant in determining a reward for a customer or for any other purpose. Additionally, it is worth noting that in Schultz, “[t]he central management firm 3 produces a reward booklet 16 to inform the consumer 19 of the reward offers 2 available. This reward booklet 16 is sent periodically to participating consumers 19.” [Schultz, column 6, lines 54 – 57]. In other words, the rewards in Schultz are not in any way customized for a particular consumer, based on purchasing history data associated with a customer or otherwise.

In conclusion, the Examiner has not set forth a prima facie case of anticipation of the claims of Group III, none of the references disclose the limitation of the claim of Group III, and none of the references possess the advantages conferred by the limitation, as discussed in detail above in Section 3.2 "Advantages of Dependent Claim 70". Accordingly, for at least those reasons, the claims of Group III are patentable in view of the cited references.

### **3.5. The Prior Art Cannot Be Combined or Modified To Render Dependent Claim 70 Obvious**

As discussed in Section 1.5, the prior art references cannot be combined or modified in any manner that would render the claims of Group III obvious at least because (i) there is no suggestion in the record to make the combination or modification, and (ii) the references are non-analogous.

### **3.6. Dependent Claim 70 is Directed to Statutory Subject Matter**

The Examiner's §101 rejection of claim 70 is flawed because the Examiner has not made out a prima facie case of unpatentability of claim 70. Specifically, the Examiner has not shown that claim 70 can be deemed to be directed to non-statutory subject matter. The Examiner's §101 rejection of claim 70 is further flawed because it has no basis in the law. The Examiner's §101 rejection is still further flawed because it is an arbitrary and capricious change in agency policy, with no reasoned explanation being provided for the change in policy.

Further, claim 70 is directed to statutory subject matter because it meets the definitive test for statutory subject matter: the claim produces a useful, concrete and tangible result. Claim 70 produces at least the same useful, concrete and tangible result as the claims of Group I: *calculating a reduced purchase total*.

#### **3.6.1. Appellants' Understanding of the Standard Used By Examiner**

Claim 70 stands rejected by the Examiner under 35 U.S.C. 101 "because the claimed invention is directed to non-statutory subject matter." [Final Office Action, mailed December 03, 2002 (Paper No. 19), page 2, paragraph 4]. The Examiner asserts that the claim is "drawn to a method of producing a disembodied data structure." Specifically, claim 70 stands rejected under the same proposed two-part test discussed above in Section 1.6.1.

#### **3.6.2. The Proper Legal Standard Under Section 101: Useful, Concrete and Tangible Result**

Whether a patent claim is directed to statutory subject matter under 35 U.S.C. §101 is a question of law. AT & T Corp., 172 F.3d 1352 at 1355. As discussed above in Section 1.6.2, the proper legal test for the presence of statutory subject matter is only that a claimed process or apparatus provide a "useful, concrete, and tangible result."

### **3.6.3. Dependent Claim 70 Meets the Proper Legal Standard Under Section 101**

As discussed above in Section 1.6.3, claim 32 (from which claim 70 depends) produces a useful, concrete and tangible result. Specifically, *calculating a reduced purchase total* is a useful, concrete and tangible result. As explained in Section 2.2, this limitation produces a useful, concrete and tangible result – a reduction in a customer’s out-of-pocket costs at the time of the transaction.

Moreover, the scope of claim 70 as presented encompasses a variety of specific implementations of the claimed process. Certain of these embodiments implicate the use of devices (such as computers or data processing devices) in the processes. These “device-based” species clearly fall within the broader generic definition of the claimed processes. Given that utility for a genus may be established through a recitation of utility of a species within that genus, a determination that the generically claimed process of claim 70 lacks utility is clearly improper.

### **3.6.4. The Examiner’s Reasons Cannot Support a Rejection Under Section 101**

The Examiner relies on the same reasons (discussed in Section 1.6.4 above) in rejection claim 70 as were relied on in the rejection of the claims of Group I. The Examiner’s reasons for the rejection of claim 70 are based on an incorrect legal standard, as discussed in Section 1.6.4 and Section 1.6.5. Since claim 70 satisfies the correct legal standard, the rejection should be reversed.

### **3.6.5. The Examiner’s Standard is an Arbitrary and Capricious Change in PTO Policy**

As discussed in Section 1.6.6 above, the application of the new two-part test which requires that a method claim recite a computer or computer component in order to be statutory under §101, when no such requirement was imposed in hundreds of prior patents and no reasoned explanation for the change in policy has been provided, is an arbitrary and capricious agency action and should be vacated.

## CONCLUSION

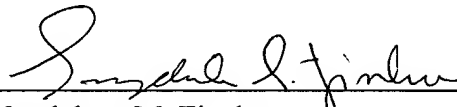
Thus, the Examiner's §102 rejections of the pending claims are improper at least because Examiner has failed to show that all of the limitations of any claim are disclosed by the prior art. In addition, the references, alone or in combination, do not disclose or suggest all the limitations of any claim. Further, the Examiner's §101 rejection of the pending claims is flawed at least because the Examiner has failed to show that the claims are not directed to statutory subject matter. In addition, the claims are directed to statutory subject matter because they do produce a useful, concrete and tangible result. Therefore, Appellants respectfully request that the Examiner's rejections be reversed.

If any issues remain, or if there are any further suggestions for expediting allowance of the present application, please contact Magdalena M. Fincham using the information provided below.

Appellants hereby request any extension of time that may be required to make this Appeal Brief timely. Please charge any fees that may be required for this paper, or credit any overpayment, to Deposit Account No. 50-0271.

Respectfully submitted,

June 9, 2004  
Date

  
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**APPENDIX A**  
**CLEAN COPY OF CLAIMS INVOLVED IN THE APPEAL**

Claims **1 – 15, 32 and 57 - 71** are pending and appealed.

Claims **1 and 32** are independent.

1. A method of calculating a purchase total for a transaction, the method comprising the steps of:

receiving a plurality of product identifiers, each of the product identifiers representing a respective product to be purchased;

calculating an initial purchase total for the transaction based on respective first prices for each of the products to be purchased;

determining whether the initial purchase total is at least equal to a predetermined threshold purchase total; and

if the initial purchase total is at least equal to the predetermined threshold purchase total, calculating a reduced purchase total for the transaction based on respective second prices for each of the products to be purchased,

at least one of the respective second prices being lower than the corresponding first price for the product to be purchased,

wherein at least one of the respective second prices is calculated based on at least one of (i) the first price, (ii) a cost associated with the corresponding product, and (iii) a minimum profit amount, and

wherein a percentage difference between one first price and the corresponding second price for a first product to be purchased in the transaction

is different than

a percentage difference between another first price and the corresponding second price of a second product to be purchased in the transaction.

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2. A method according to claim 1, further comprising the step of retrieving the first and second prices from a database.
3. A method according to claim 2, wherein the retrieving step is completed before the step of calculating the initial purchase total.
4. A method according to claim 2, wherein a portion of the retrieving step is performed after the step of calculating the initial purchase total.
5. A method according to claim 1, further comprising the step of applying the reduced purchase total as a final purchase total for the transaction.
6. A method according to claim 1, further comprising the steps of:  
determining whether the reduced purchase total is less than the predetermined threshold purchase total; and  
if the reduced purchase total is less than the predetermined threshold purchase total, applying the initial purchase total as a final purchase total for the transaction.
7. A method according to claim 1, wherein the receiving step includes entering the product identifiers into a point of sale terminal.
8. A method according to claim 7, wherein the entering step includes using a bar code reader to read respective bar codes on the products to be purchased.
9. A method according to claim 1, wherein the receiving step includes receiving product identifiers entered by a customer via a Web site.
10. A method according to claim 1, wherein the receiving step includes entering product identifiers into a computer terminal in response to communication with a customer.
11. A method according to claim 1, further comprising the step of displaying the first and second prices in a retail store.

CLEAN COPY OF CLAIMS INVOLVED IN THE APPEAL

12. A method according to claim 1, further comprising the step of displaying in a retail store the first prices and respective discount amounts which define the second prices.

13. A method according to claim 1, further comprising the step of displaying in a retail store the first prices and respective discount percentages which define the second prices.

14. A method according to claim 1, further comprising the step of printing the first and second prices in a catalog.

15. A method according to claim 1, further comprising the step of displaying the first and second prices on a monitor component of a customer's computer in response to the customer accessing a Web site.

32. A method of calculating a purchase total for a transaction, the method comprising the steps of:

receiving a plurality of product identifiers, each of the product identifiers representing a respective product to be purchased;

calculating an initial purchase total for the transaction based on respective first prices for each of the products to be purchased;

determining whether the initial purchase total is at least equal to a predetermined threshold purchase total; and

if the initial purchase total is at least equal to the predetermined threshold purchase total, calculating a reduced purchase total for the transaction based on respective second prices for each of the products to be purchased, at least one of the respective second prices being lower than the corresponding first price for the product to be purchased,

wherein a percentage difference between one first price and the corresponding second price for a first product to be purchased in the transaction

is different than

a percentage difference between another first price and the corresponding second price of a second product to be purchased in the transaction.

57. The method of claim 32, further comprising:  
retrieving the first and second prices from a database.
58. The method of claim 32, wherein the method is performed by a point-of-sale terminal.
59. The method of claim 58, wherein the method is performed by a point-of-sale terminal in a grocery store.
60. The method of claim 32, further comprising:  
applying the reduced purchase total as a final purchase total for the transaction.
61. The method of claim 32, wherein the method is performed by a computer in response to a purchase by a remote customer of a web site.
62. The method of claim 61, further comprising:  
causing the reduced purchase total to be displayed to the customer.
63. The method of claim 32, wherein the predetermined threshold purchase total comprises a minimum purchase total, and wherein  
the step of determining whether the initial purchase total is at least equal to a predetermined threshold total further comprises determining whether the initial purchase total is less than a predetermined maximum purchase total,  
thereby determining whether the initial purchase total is within a predetermined range of purchase totals.
64. The method of claim 32, wherein the predetermined threshold purchase total comprises at least one of (i) a purchase total of a single transaction, (ii) a purchase total of a plurality of transactions, and (iii) an average purchase total of a plurality of transactions.

65. The method of claim 32, wherein at least one of the plurality of product identifiers corresponds to at least two pricing tiers that are groups of prices, wherein the first price is associated with a first group of prices and the second price is associated with a second group of prices.

66. The method of claim 65, wherein the first group of prices is associated with a first predetermined threshold purchase total and the second group of prices is associated with a second predetermined threshold purchase total.

67. The method of claim 32, further comprising:  
determining an amount that is a difference between the initial purchase total and the predetermined threshold total.

68. The method of claim 67, further comprising:  
determining at least one of the respective second prices of at least one of the products to be purchased based on the difference.

69. The method of claim 32 wherein at least one of the respective second prices of at least one of the products to be purchased is determined based on purchasing history data associated with a customer that is associated with the transaction.

70. The method of claim 32 wherein the predetermined threshold purchase total is selected based on purchasing history data associated with a customer that is associated with the transaction.

71. The method of claim 32 wherein at least one of the predetermined threshold purchase total and the respective second prices is selected based on a customer identifier of a customer that is associated with the transaction.

**APPENDIX B**

**CHART SHOWING CLAIM DEPENDENCIES**

Claims 1 – 15, 32 and 57 - 71 are pending and appealed. Claims 1 and 32 are independent.

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*CHART SHOWING CLAIM DEPENDENCIES*